

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (amended). A multifocal intraocular lens, said lens comprising:

a lens body having a substantially elliptical anterior surface with an upper portion and a lower portion, a substantially elliptical posterior surface with an upper portion and a lower portion, ~~an upper portion, and a lower portion~~, wherein the anterior surface is convex, the upper portion of the posterior surface is concave, and the lower portion of the posterior surface is convex, with an optical axis passing through the anterior surface and the posterior surface;

wherein the lower portion of the anterior surface and the lower portion of the posterior surface meet at a bottom periphery, and the upper portion of the anterior surface and the upper portion of the posterior surface meet at a top periphery;

said bottom periphery having a semicircular or curved shape in cross-section along the optical axis, the lens body tapering upwards to create a tapering periphery at the top periphery, wherein the lower portion of the lens body is thicker than the upper portion of the lens body; and

~~said lower portion having a semicircular shape in cross-section and tapering upwardly toward said upper portion to create a tapering periphery, wherein a cross-sectional profile of said lens body is comma-shaped;~~

said upper portions of said anterior surface and said posterior surface of said upper portion each having at least one radius of curvature[[,]].

~~wherein said lens body encompasses the optical axis of the eye depending upon the position of the eye.~~

Claim 2 (amended). The multifocal intraocular lens of Claim 1, wherein said at least one radius of curvature of the upper portion of said posterior surface ~~of said upper portion~~ is shorter than the upper portion of said anterior surface ~~of said upper portion~~.

Claim 3 (amended). The multifocal intraocular lens of Claim 1, wherein the upper portions of said anterior and posterior surfaces ~~of said upper portion~~ of said lens body each have multiple radii of curvature.

Claim 4 (original). The multifocal intraocular lens of Claim 3, wherein said at least one multiple radii of curvature of said posterior surface of said lens body is shorter than said multiple radii of curvature of said anterior surface.

Claim 5 (amended). The multifocal intraocular lens of Claim 1, wherein said lens body is formed of ~~comprises~~ a synthetic material.

Claim 6 (original). The multifocal intraocular lens of Claim 1, wherein said lens body has at least one index of refraction.

Claim 7 (original). The multifocal intraocular lens of Claim 6, wherein said lens body has multiple indices of refraction.

Claim 8 (amended). The multifocal intraocular lens of Claim 7, wherein said lower portion of said lens body has a greater index of refraction or focusing power than said upper portion.

Claim 9 (original). The multifocal intraocular lens of Claim 1, wherein said lens body is substantially aspheric.

Claim 10 (amended). The multifocal intraocular lens of Claim 1, wherein said lens body is formed of ~~comprises~~ a material that is not colorless.

Claim 11 (previously presented). The multifocal intraocular lens of Claim 5, wherein said synthetic material is selected from the group consisting of silicone, acrylic, and polymethylmethacrylate.

Claim 12 (amended). A multifocal intraocular lens system for insertion of a multifocal intraocular lens into an artificial lens capsule for placement within an eye having a posterior chamber and an anterior chamber, said lens system comprising:

a multifocal intraocular lens comprising a lens body having a substantially elliptical anterior surface with an upper portion and a lower portion, a substantially elliptical posterior surface with an upper portion and a lower portion, wherein the anterior surface is convex, the upper portion of the posterior surface is concave, and the lower portion of the posterior surface is convex, with an optical axis passing through the anterior surface and the posterior surface; wherein the lower portion of the anterior surface and the lower portion of the posterior surface meet at a bottom periphery, and the upper portion of the anterior surface and the upper portion of the posterior surface meet at a top periphery; said bottom edge having a semicircular or curved shape in cross-section along the optical axis, the lens body tapering upwards to create a tapering periphery at the top periphery, wherein the lower portion of the lens body is thicker than the upper portion of the lens body; and said upper portions of said anterior surface and said posterior surface each having at least one radius of curvature;

~~said lens body having a substantially elliptical posterior surface;~~
~~said lens body having an upper portion and a lower portion;~~
~~said lower portion having a semicircular shape and tapering upwardly toward said upper portion to create a tapering periphery;~~
~~said anterior surface and said posterior surface of said upper portion each having at least one radius of curvature;~~
an artificial lens capsule having an anterior surface and a posterior surface and adapted to be positioned within the eye, said lens body being disposed within said artificial lens capsule;
a substance dispersed within said artificial lens capsule for allowing said lens body to move within said artificial lens capsule; and
wherein said lens body is sized to encompass ~~encompasses~~ the optical axis of the eye depending upon the position of the eye.

Claim 13 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule is so dimensioned as to replace the natural lens capsule of the eye.

Claim 14 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule is adapted to be positioned in the posterior chamber of an eye.

Claim 15 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule is adapted to be positioned in the anterior chamber of an eye.

Claim 16 (previously presented). The multifocal intraocular lens system of Claim 12, wherein the distance between said anterior and posterior surface of said artificial lens capsule defines a thickness, said artificial lens capsule having a first axis extending generally perpendicular to said

anterior and posterior surfaces and a second axis generally perpendicular to said first axis that defines a width.

Claim 17 (previously presented). The multifocal intraocular lens system of Claim 16, wherein the thickness of said artificial lens capsule along the first axis is smaller than its width along its second axis.

Claim 18 (previously presented). The multifocal intraocular lens system of Claim 16, wherein said artificial lens capsule is adapted to be positioned in the eye so that the first axis is approximately parallel with the optical axis of the eye.

Claim 19 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule is not colorless.

Claim 20 (amended). The multifocal intraocular lens system of Claim 45 [[12]], wherein said artificial lens capsule is formed of ~~comprises~~ a material selected from the group consisting of silicone, acrylic, and polymethylmethacrylate.

Claim 21 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule is substantially pliable.

Claim 22 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule has at least one index of refraction.

Claim 23 (amended). The multifocal intraocular lens system of Claim 12, wherein said at least one radius of curvature of the upper portion of said posterior surface ~~of said upper portion~~ of said lens body is shorter than said upper portion of said anterior surface of said lens body.

Claim 24 (amended). The multifocal intraocular lens system of Claim 12, wherein the upper portions of said anterior and posterior surfaces ~~of said upper portion~~ of said lens body each have multiple radii of curvature.

Claim 25 (amended). The multifocal intraocular lens system of Claim 24, wherein said at least one radii of curvature of said posterior surface of said lens body ~~in the aggregate~~ are shorter than said multiple radii of curvature of said anterior surface.

Claim 26 (canceled).

Claim 27 (amended). The multifocal intraocular lens system of Claim 12, wherein said lower portion of said lens body has a greater index of refraction or focusing power than said upper portion.

Claim 28 (original). The multifocal intraocular lens system of Claim 12, wherein said lens body is substantially aspheric.

Claim 29 (original). The multifocal intraocular lens system of Claim 12, wherein said lens body comprises a material that is not colorless.

Claim 30 (amended). The multifocal intraocular lens system of Claims 12 ~~or 29~~, wherein said lens body is formed of ~~comprises~~ a synthetic material.

Claim 31 (original). The multifocal intraocular lens system of Claim 12, wherein said substance is not colorless.

Claim 32 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said substance is a member of the group consisting of silicone, gel, sol, liquid, oil, and acrylic.

Claim 33 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said substance slows movement of said lens body within said artificial lens capsule compared to movement of said lens body in the absence of said substance.

Claim 34 (previously presented). The multifocal intraocular lens system of Claim 12, wherein said lens system further comprises securing means for holding said artificial lens capsule in place within the eye.

Claim 35 (previously presented). The multifocal intraocular lens system of Claim 34, wherein said securing means comprises at least two structures that extend from opposite sides of said lens capsule.

Claim 36 (canceled).

Claim 37 (previously presented). The multifocal intraocular lens system of Claim 35, wherein said structures comprise haptics.

Claim 38 (amended). The multifocal intraocular lens system of Claim 30, wherein said synthetic material is selected from the group consisting of silicone, acrylic, and polymethylmethacrylate.

Claim 39 (amended). A multifocal intraocular lens system ~~systems~~ for insertion of a multifocal intraocular lens into an enucleated natural lens capsule of an eye, said lens system comprising:

a multifocal intraocular lens comprising a lens body having a substantially elliptical anterior surface with an upper portion and a lower portion, a substantially elliptical posterior surface with an upper portion and a lower portion, wherein the anterior surface is convex, the upper portion of the posterior surface is concave, and the lower portion of the posterior surface is convex, with an optical axis passing through the anterior surface and the posterior surface; wherein the lower portion of the anterior surface and the lower portion of the posterior surface meet at a bottom periphery, and the upper portion of the anterior surface and the upper portion of the posterior surface meet at a top periphery; said bottom edge having a semicircular or curved shape in cross-section along the optical axis, the lens body tapering upwards to create a tapering periphery at the top periphery, wherein the lower portion of the lens body is thicker than the upper portion of the lens body; and said upper portions of said anterior surface and said posterior surface each having at least one radius of curvature;

~~said lens body having a substantially elliptical posterior surface;~~

~~said lens body having an upper portion and a lower portion;~~

~~said lower portion having a semicircular shape and tapering upwardly toward said upper portion to create a tapering periphery;~~

~~said anterior surface and said posterior surface of said upper portion each having at least one radius of curvature;~~

a substance adapted for dispersion within said enucleated natural lens capsule for allowing said lens body to move within said enucleated lens capsule; and

wherein said lens body is sized to encompass ~~encompasses~~ the optical axis of the eye depending upon the position of the eye.

Claim 40 (previously presented). The multifocal intraocular lens system of Claim 39, further wherein said substance is a member of the group consisting of silicone, gel, sol, liquid, oil, and acrylic.

Claim 41 (previously presented). The multifocal intraocular lens system of Claim 39, further wherein said substance slows movement of said lens body within said enucleated natural lens capsule compared to movement of said lens body in the absence of said substance.

Claim 42 (previously presented). The multifocal intraocular lens system of Claim 39, further wherein said substance is not colorless.

Claim 43 (new). The multifocal intraocular lens system of Claim 39, wherein said substance is formed of a synthetic material.

Claim 44 (new). The multifocal intraocular lens system of Claim 12, wherein said substance is formed of a synthetic material.

Claim 45 (new). The multifocal intraocular lens system of Claim 12, wherein said artificial lens capsule is formed of a synthetic material.